

# ACQUISITION CANDIDATE SELECTION STUDY

INPUT



## ABOUT INPUT

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INPUT provides planning information, analysis, and recommendations to managers and executives in the industries. Through technology forecasting analysis, INPUT supports in making informed decisions. Services are provided through the use of computers, communication products and services.

The company carries out depth research. We assist clients on important issues. Our members analyze and interpret data, then develop recommendations. Innovative ideas to solve problems. Clients receive regular access to data on which they can rely and continuous consultation.

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ACQUISITION CANDIDATE SELECTION STUDY

PHASE 2 REPORT

Prepared for:  
PITNEY BOWES

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MAY 1980

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## ACQUISITION CANDIDATE SELECTION STUDY

### ABSTRACT

A position paper that summarizes INPUT's recommendations for an approach by Pitney Bowes to acquire a company in the computer industry. The paper summarizes the recommended approach and presents data on 24 companies that are considered to be primary acquisition candidates.

Y-PBA  
May 1980

INPUT

# ACQUISITION CANDIDATE SELECTION STUDY

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# ACQUISITION CANDIDATE SELECTION STUDY

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I POSITION PAPER





## I POSITION PAPER

### A. GOALS OF THE PITNEY BOWES ACQUISITION PROGRAM

- Discussions of the Pitney Bowes acquisition goals have taken place on a number of occasions during the past few months.
- In November 1979, Mr. Peter Cunningham of INPUT, in his presentation to the Pitney Bowes executive group, cited certain specific types of acquisitions as being highly desirable and others as being somewhat dangerous.
  - Included in the dangerous category were firms that offer system software (with the possible exception of those with productivity enhancement products), or firms with general business systems in the "over \$35,000" class competing with IBM System 32 and 34 machines.
  - Included in the desirable category were very small systems in the "less than \$10,000" class because of the distribution capability of Pitney Bowes.
- Since INPUT has now examined the overall program in more detail, these goals, as stated in the context of INPUT's current thinking, are:
  - To obtain an in-house expertise in contemporary computer system technology.

- To provide an environment within which this in-house expertise can be free to flourish, relatively independent of the influence of Pitney Bowes' existing, day-to-day businesses.
  - To provide Pitney Bowes' management with a "window" on the computer industry. This window would, of course, provide in-depth insights into both the industry's markets and technology as well as the considerable and rapidly changing hazards affecting those companies that currently comprise the industry.
  - To provide a means of integrating computer-related technology with Pitney Bowes' existing and planned product lines.
  - To provide Pitney Bowes with additional resources that will better enable the company to leverage its existing strengths and product lines into more sophisticated and complete business system products. In this context, "office-of-the-future" oriented business systems are of prime importance to Pitney Bowes.
- Realistically, there is probably no single acquisition candidate which would fully enable Pitney Bowes to satisfy all of the goals that are outlined above. However, INPUT has identified those companies which are most likely to satisfy the majority of the specified goals.

#### **B. PARAMETERS USED IN SCREENING ACQUISITION CANDIDATES**

- A number of general parameters were agreed upon and employed as a means of disciplining the initial screening process. These parameters were:
  - Revenues - Not less than \$20 million per year and preferably not greater than \$75 million per year.

- Track Record - Long enough in business to have matured beyond the pure entrepreneurial stage and to have developed into a position of at least three to four years' profit growth. The bottom-line growth had to have been commensurate with revenue growth.
- Management - Management had to be demonstrably mature and stable, at least by computer industry standards. INPUT also looked for the presence of sufficient and competent second-line management, a factor of particular importance in the context of Pitney Bowes' interest in utilizing the acquired company's management for corporate purposes while, at the same time, ensuring that the acquired company can continue to operate successfully on an "arm's-length" basis.
- Product Lines - Here somewhat different criteria had to be applied to computer service companies as opposed to computer hardware companies.
  - Computer Service Companies.
    - Multiple products.
    - Service multiple industry segments.
    - High level of value added provided by the service company.
    - Normally some form of data communications associated with the service.
  - Computer Hardware Companies.
    - High-technology products.

- Product line oriented to the end user market as opposed to the OEM market.
- A system-oriented product, performing a total business function, as opposed to a component of a business system.
- Markets - The markets served by the acquisition candidates should be similar to those already served by Pitney Bowes or logical extensions of existing Pitney Bowes markets. As an example, a company that primarily serves the defense industry or the scientific community would not be considered a logical acquisition candidate in spite of any other attributed that it might have.
- Manufacturing Capability - A hardware manufacturing capability was viewed as a definite asset when considering acquisition candidates. Alternatively, the lack of such a capability was not considered crucial, as few, if any, computer service companies are currently engaged in any form of hardware manufacturing.
- In particular, in the case of small business computer manufacturers, the manufacturing process has become extremely simple. It has become more of an assembly process with everything from logic chips to printers and CRTs purchased from OEMs. Thus, there should not be a concern about large asset investments.
- There is also a significant difference in the plant facilities required for manufacturing purely electronic equipment as opposed to the facilities required for electro-mechanical manufacturing. The electronics manufacturers can, and do, occupy standard, open-bay buildings that can alternatively be used as warehouses. Specialized, heavy-duty electrical supply circuits, production lines, material handling equipment, etc., are kept to a minimum.



- The above issues are stressed to emphasize the point that, even in the case of a small business computer manufacturer, the assets required to support the manufacturing operation are minimal when compared to more conventional manufacturing companies. Thus a number of manufacturing companies have been included and viewed as reasonable alternatives to computer service companies.
- INPUT previously agreed not to eliminate otherwise qualified acquisition candidates based on perceived difficulties in the acquisition process itself. Also, by setting minimum revenue levels, those companies that service only geographically limited market areas were automatically eliminated. Geographic location was not, in itself, used as a screening factor, although it was considered important that an acquisition candidate be located in a major metropolitan area. This was considered important from the perspectives of both transportation/coordination and future growth potential.
- INPUT briefly examined a number of companies that are primarily, or solely, in the communications service business. This class of company was excluded on the basis that communications services companies are oriented towards too narrow a marketplace. Further, while the management of these companies are often extremely well versed in state-of-the-art technology, they are rarely oriented towards total business functions. Thus, these companies were not considered viable acquisition candidates.
- In a similar way, service companies that are heavily oriented towards government clients or scientific/engineering markets were also eliminated. Again, while these companies are frequently applying the most advanced technology to problem solving, they do not deal in broad-based business services.

### C. PHASE OF DEVELOPMENT

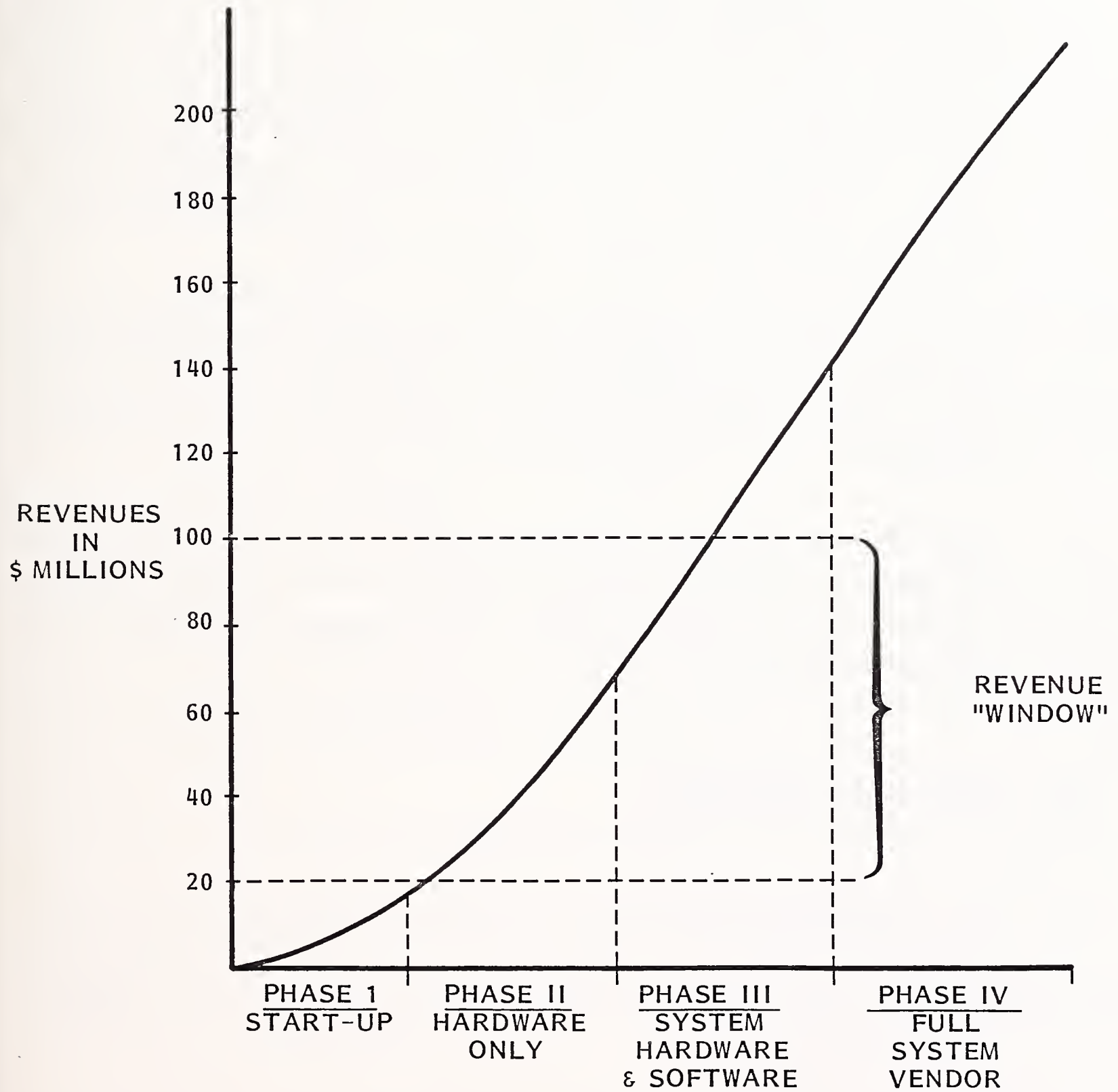
- In the case of the computer manufacturing companies, the intent was to identify those companies that had already passed through the startup and hardware manufacturing stages and were at least entering the system integration stage. It is INPUT's belief that Pitney Bowes' objectives would be best served by acquiring a company that, at least, is beginning to offer turnkey small business computers. However, the revenue "window" which encompasses companies having both a systems capability and revenues under \$200 million is a very narrow one. Thus, in certain cases, the initial upper-limit revenue guidelines were exceeded, as illustrated in Exhibit I-1.

### D. RESOURCES PROVIDED BY PITNEY BOWES

- Both Pitney Bowes and Dictaphone are recognized names in a broad range of business market segments. Permanence and financial stability, together with dependability, are associated with both names by the business community.
- The importance of an image of stability in the computer industry cannot be overemphasized. The relationship of Pitney Bowes' size and stability, when combined with the appropriate, high-technology company and product, could result in a very positive impact on the marketplace.
- The existing network of Pitney Bowes field offices could be important. It is improbable that existing field personnel would be of significant value in marketing or servicing an acquired, high-technology product line; however, the existing nationwide field presence would be of value. As an example, the national image and presence of Tandy Corporation's Radio Shacks have significantly aided in the growth of Tandy's TRS-80 II computers in the small business market.

EXHIBIT I-1

COMPANY SIZE VERSUS STAGE OF DEVELOPMENT



- Pitney Bowes' financial resources can add to the momentum of a technically sound company that does not otherwise have sufficient cash flow to expand its operations rapidly.
- A number of companies evaluated have business plans to offer new products which, if implemented, would result in the penetration of new market segments. However, debt or equity financing is increasingly difficult to obtain for these firms. Pitney Bowes' financial resources could, if properly applied, result in significant growth by the acquired company. It is conceivable that some of the future products envisioned by Pitney Bowes might already exist, in embryonic form, within a potential acquisition candidate.
- Pitney Bowes has a direct entree to a significant number of businesses through both the Pitney Bowes and Dictaphone sales forces. With this entree, the need for the "missionary sales call" would be eliminated for the acquired company's sales force.
- While the various resources outlined above may or may not play a vital role in the acquisition program, they are factors which might justifiably influence either the company that is acquired or the strategy that is used in the acquisition negotiations.

#### E. ACQUISITION GUIDELINES

- The management of the acquired company must understand, and be in agreement with, the basic rationale for the acquisition. In particular, they must be totally responsive to the idea of taking on broader corporate responsibilities.
- The first twelve to eighteen months after the acquisition will be extremely difficult for both management groups. While this can be viewed as merely a truism, it becomes particularly meaningful when the merged companies are



totally different, from both a size and product point-of-view. Thus, sufficient time must be allowed for acclimation during the post-acquisition period. It is suggested that a timetable for integration be outlined prior to the actual acquisition.

- Incentives must be created that will encourage the management of the acquired company to remain with Pitney Bowes and to remain motivated. If the inevitable post-acquisition frustrations cause key members of the acquired management to depart, then much of the hoped-for value of the acquisition will be lost.
- The management of the acquired company should be encouraged to outline any major financial requirements associated with future plans prior to the acquisition. It is probable that a company which agrees to be acquired is doing so, at least in part, because of its perceived financial needs. To whatever degree they exist, these needs should be identified and agreed upon as part of the acquisition negotiations.
- A joint study team should be formed within 90-120 days after the acquisition. This team should consist of senior members of each company's management with the purpose of developing a plan for specifying how the acquired company can utilize its technological resources positively to impact Pitney Bowes. This study team should be formed, using the following guidelines:
  - The study team should have from four to six members.
  - It should report to senior corporate management.
  - Members should be senior line and staff personnel from both organizations.
  - Schedule and time commitments should be reasonable in view of other responsibilities.

- The project should be completed in a time frame which allows the results to influence Pitney Bowes' product plans.

#### F. POST-ACQUISITION GUIDELINES

- As mentioned previously, Pitney Bowes should allow sufficient nonstress time for acclimation to occur. However, the joint project team should be formed within 90-120 days. Allowing a longer lapse of time would foster a possible "we/them" attitude.
- The project team should have, as one of its responsibilities, the requirement to set forth a basic business plan which would ensure that the acquired company's impact on Pitney Bowes would be positive. There should be:
  - Specific goals.
  - Specific dates.
  - Specific costs.
  - Specific P&L benefits.
- This overall plan should probably encompass 3-5 years with very specific goals for cost/benefits at least during the early years of the plan.
- The acquisition should result in the potential for cost reductions on the part of the acquired company.
  - If a public company, certain legal and accounting costs would be eliminated. Pitney Bowes should be able to supply legal, financial, and certain purchasing assistance.

- There may be the possibility of reducing certain field marketing and marketing support expenses by combining field locations on an administrative basis:
  - . Rent.
  - . Administrative overhead.
- It is suggested, however, that both field management groups remain autonomous.
- The CEO of the acquired company should be appointed to whatever Senior Management Groups exist within Pitney Bowes.
- The acquired company should be allowed to develop its own business plans as before, subject to a business plan review by Pitney Bowes' management. However, Pitney Bowes' initial reviews should be limited to the financial impact of the plan and should not involve product marketing or technical reviews.
- Pitney Bowes should have on its staff one or two senior personnel who have the responsibility for liaison with the acquired company. These persons should also act as checks and balances, and their functions should reflect this. Their initial responsibility should be as members of the project team.

#### G. SUMMARY

- Given the market position of Pitney Bowes and its various resources, INPUT believes that the concept of acquiring a high-technology, computer industry firm is a sound strategy for the company. Although the word "synergism" is generally overworked, there is a strong possibility of true synergism as a result of such an acquisition.

- It should be noted that the majority of computer services and computer manufacturing companies are no longer struggling with the technological aspects of their business. Instead they are attempting to develop solutions to business problems using whatever technology is at hand.
- The most serious obstacles facing many of the companies that INPUT analyzed were marketing, distribution, and field support problems. It is in these very areas that Pitney Bowes can provide the resources which would greatly enhance the business success of an acquired, high-technology company.



II COMPANIES SELECTED FOR FURTHER  
CONSIDERATION



## II COMPANIES SELECTED FOR FURTHER CONSIDERATION

### A. AMERICAN MANAGEMENT SYSTEMS

American Management Systems, Inc.  
1515 Wilson Boulevard  
Arlington, VA 22209  
(703) 841-6000

Charles Rossotti, President  
Public Corporation, OTC

#### I. THE COMPANY

- American Management Systems, Inc. (AMS) was founded in 1970 as a Delaware corporation by five former members of the Office of Systems Analysis of the Defense Department. Lehman Brothers contributed the initial equity investment of \$300,000.
- Initially a professional services firm, AMS now provides software applications packages and offers processing services, in addition to professional services.
- In April 1979, AMS became a publicly owned corporation with shares trading over the counter.
- AMS develops, installs, and operates computer systems used in the management and administration of business and government organizations through its Computer Systems business segment. AMS also installs systems for operation on its customers' computers and provides operational services using its own

computers via its Computer Services segment. The company has a Management Consulting segment which currently derives substantially all of its revenues from Federal Government clients.

AMERICAN MANAGEMENT SYSTEMS, INC.  
FIVE-YEAR FINANCIAL SUMMARY  
(\$000s omitted)

	1979	1978	1977	1976	1975
Revenues	\$48,099	\$31,881	\$21,195	\$12,321	\$ 7,239
Net Income	1,724	1,441	1,197	967	133

- In July 1979, AMS announced the acquisition of Computerized Publications, Inc. (CPI) of Arlington, Virginia. CPI is a phototypesetting firm which developed the PI/ONE software. PI/ONE capabilities include text processing, data manipulation, and photocomposition. This product will be incorporated into AMS's computer services.

- AMS employees are distributed as follows:

- Business managers and senior consultants	10%
- Project managers and department managers	15
- Computer system analysts	35
- Management and business analysts	15
- Technical analysts and programmers	<u>25</u>
	100%

## 2. KEY PRODUCTS AND SERVICES

- Approximately 64% of AMS's total revenues are derived from professional services and 36% from processing services. Packaged software sales have not, as yet, produced any significant contribution to total revenues.
- The Computer Systems segment develops and installs large, complex, customized application systems. In 1978, there were 23 such contracts in progress.
- Approximately 70% of the Computer Services revenues in 1978 were derived from remote computing (interactive and remote batch), and 30% was derived from batch services. For the approximately 500 Computer Services customers, AMS offers its own application software (including GFS and CFMS), as well as providing software systems obtained from independent vendors (including CICS, HASP, OS/MVT, WYLBUR, Super WYLBUR, PANVALET, SPSS, and EASYTRIEVE).
- AMS's Management Consulting business segment provides data processing consulting.

## 3. SELECTION RATIONALE

- AMS has a varied and well-structured product line:
  - Processing services.
  - Custom software development.
  - Consulting services.
  - An on-line capability.
  - Large-scale and minicomputer processing capabilities and systems expertise.



- Of special significance to Pitney Bowes is the CPI subsidiary, as well as AMS's extensive high technology management consulting capability.
- The management of AMS is mature and stable. In particular, the management group has profitably managed a five-fold increase in revenues over a five-year period.
- The disadvantage associated with AMS centers on what is still a high percentage (40+%) of revenues being derived from federal, state, and local governments. Management is conscious of the need to keep reducing the percent of revenues derived from government sources and has been successful in achieving its goals. There is still, however, a lingering government orientation that is not present in the other firms described in this report.

## B. ANACOMP, INC.

Anacomp, Inc.  
6161 Hillside Avenue  
Indianapolis, IN 46220  
(317) 257-6555

Ronald D. Palamara, President  
and Chairman of the Board  
Public Corporation, OTC (ANCM)

### I. THE COMPANY

- Anacomp is a computer services company specializing in software development, on-line services, facilities management, and micrographics services to approximately 1,000 clients. The annual compound revenue growth since June 1969 is 76.49%. Between 1975 and 1976 it grew 44% from \$8.9 million to \$12.8 million. It grew to \$16.1 million in 1977, a 26% increase, and in 1978 sales increased 34% to \$21.6 million.
- Anacomp was organized in Indiana in 1968 by a group of professors and consultants from Purdue University. During the company's first two years of operation, revenues were derived from internal development and the creation of new services. Its major business was creating and selling programmed instruction tapes and cassettes. On-line data processing services were also offered. From 1970 to 1975, growth came from the acquisition of nine companies. Since July 1975, four additional acquisitions have been completed. The effect of these acquisitions is expected to be positive.
- Anacomp's aggressive acquisition policy has been an asset during the recent period of computer services industry consolidation.

#### ANACOMP, INC. FIVE-YEAR FINANCIAL SUMMARY (\$000s omitted)

	1979	1978	1977	1976	1975
Revenues	\$38,118	\$21,619	\$16,183	\$12,851	\$ 8,922
Net Income	2,653	1,558	1,192	835	876

## 2. KEY PRODUCTS AND SERVICES

- Anacomp has four divisions which provide services and some products principally to banking and government clients located throughout the U.S., Europe, Asia, and Australia. The major divisions are: Software Services, Facilities Management, Data Services, and Micrographics. It is estimated that over 300 financial institutions and government agencies use Anacomp software services.
- The Software Services Division generated 18% of company revenues in fiscal year 1978. It has developed large-scale, proprietary applications software for banking and government clients for use primarily on NCR equipment. The two principal software packages are CI-RF (Customer Integrated/Reference File) and IRFS (Integrated Real-Time Financial Systems).
- The Facilities Management Division generated 22% of total revenues in fiscal 1978. It provides on-site facilities management (FM) services to numerous states and local government agencies and financial institutions. Several of the FM contracts use the software developed by the Software Services Division.
- The Data Services Division generated approximately 18% of revenues in 1978. It provides on-line, interactive processing services to numerous states and local government agencies and financial institutions. Several of the FM contracts use the software developed by the Software Services Division.
- The Data Services Division generated approximately 18% of revenues in 1978. It provides on-line, interactive processing services to 152 users, primarily banks, savings and loans, and credit unions. City and county municipalities are also clients. All services are offered through Anacomp-run data centers, or shared data processing facilities.
- The Micrographics Division, formerly the COM division, generated 42% of total revenues in 1978 and has 700 clients. It provides computer output microfilm services to clients with in-house data processing facilities and

personnel. Micrographics also offers business graphics, micropublishing and republishing, and markets micrographics film and COM duplicating equipment. Through a marketing and management agreement with Kalvar, Anacomp also exclusively markets vesicular film manufactured by Kalvar.

### 3. SELECTION RATIONALE

- Anacomp is one of the best managed computer service companies in the country and, given its size, one of the most diversified, from a product line point of view. The company serves a variety of industries and utilizes a variety of technologies in providing its services.
- The company is very acquisition-oriented and much of its diversity can be attributed to reasonably well-planned acquisition programs. It is virtually a nationwide service company although it has scant penetration into the Northeast marketplace.
- The company has recently emphasized minicomputer technology as a means of delivering computer services. Although it has not yet turned to hardware manufacturing (nor does INPUT know of any plans in this direction), Anacomp recently acquired Escom, Inc., a well-regarded minicomputer software development company.
- The only significant disadvantage to Anacomp as an acquisition candidate is intangible; i.e., the company is noted as an aggressive acquiror of companies. The Anacomp management group, particularly its chairman, may not be oriented to accepting an offer to be acquired. However, this cannot, at this time, be considered a strong enough factor to exclude Anacomp from consideration by Pitney Bowes. (Note: It is reported that Citicorp is currently in the process of acquiring Anacomp's bank services business.)



## C.     ANDERSON JACOBSON, INC.

Anderson Jacobson, Inc.  
521 Charcot Avenue  
San Jose, CA 95131  
(408) 263-8520

Raymond E. Jacobson, Chairman &  
President  
Public Corporation, OTC

### I.     THE COMPANY

- Formed in 1967 to manufacture an acoustic coupler, Anderson Jacobson claims to be the world's leading supplier of such devices. It also builds a variety of modems. Its second year in business saw the introduction of terminals in its product line, however, and these now account for the biggest slice of its revenues. Recently, the firm has gone into small business systems development as well, with the result that coupler and modems now bring in just over a quarter of the firm's \$28.8 million revenues - roughly \$7.6 million.

#### ANDERSON JACOBSON, INC. FIVE-YEAR FINANCIAL SUMMARY (\$000s omitted)

	1979	1978	1977	1976	1975
Revenues	\$34,700	\$26,834	\$20,921	\$17,342	\$13,360
Net Income	1,641	1,330	1,050	864	664

### 2.     KEY PRODUCTS AND SERVICES

- Initially, Anderson Jacobson was solely engaged in the terminal leasing business. Subsequently, the company entered into the manufacturing business producing terminals under its own name. Currently, it manufactures data communication equipment, as well as remote terminals. The company continues to lease its own equipment as well as equipment produced by other manufacturers.



- Recently, at a public meeting, the chairman indicated that Anderson Jacobson would begin producing small business computers on a turnkey basis. The step implies the development of an in-house software capability, although such a capability has not previously existed within the company.

### 3. SELECTION RATIONALE

- Anderson Jacobson can be viewed as an "old line" computer hardware manufacturer. The company is well regarded in the industry and has been a stable, growing corporation for almost 13 years. Management should be viewed as being conservative, almost ultra-conservative, given the normal standards of the computer industry.
- The company's recent announcement to manufacture and sell small business computers is a major one and, without such a plan, Anderson Jacobson would not have been considered as a viable acquisition candidate. Management would not have made such an announcement (during a security analyst meeting) without having first started the implementation of these plans. Given its past track record and knowing its capabilities, INPUT believes the company will be successful in bringing a small business computer to the marketplace. Also, Anderson Jacobson already has a strong sales and service network in place on a national basis. Assuming that the small business computer is well architected, this network will prove to be very valuable.
- From a negative point of view, Anderson Jacobson does not currently have a systems software capability and will have to build, or buy, this capability before it can be considered a total system vendor.

D. APPLIED DATA RESEARCH, INC.

Applied Data Research, Inc.  
Route 206 Center, CN-8  
Princeton, NJ 08540  
(609) 921-8550

Henry R. Wickenden, Chairman  
John L. Bennett, President  
Public Corporation, AMEX

I. THE COMPANY

- Applied Data Research (ADR) was founded in 1959 to write contract software. ADR is presently engaged in the development and marketing of proprietary software products and provides professional services in the computer and data processing field.
- Operating subsidiaries of ADR are:
  - ADR Services, Inc. (ADRSI), Washington, DC: consulting services.
  - Massachusetts Computer Associates, Inc. (COMPASS), Boston: research facility and consulting organization.
  - ADR International, Inc.: international marketing of ADR's products and services.
  - ADR Applied Data Research Canada Ltd.: markets ADR software products in Canada.

APPLIED DATA RESEARCH, INC.  
FIVE-YEAR FINANCIAL SUMMARY  
(\$000s omitted)

	1979	1978	1977	1976	1975
Revenues	\$28,686	\$22,627	\$16,930	\$12,913	\$ 9,613
Net Income	525	1,977	1,637	1,440	432

## 2. KEY PRODUCTS AND SERVICES

- Software products generated 83% of ADR's total revenues in 1978.
- Prior to the acquisition of Datacom, ADR sold only utility software products designed to assist IBM Systems/360, 370, 303X, 4300, and other IBM plug compatible computer users in designing, implementing, testing, and maintaining computer programs. ADR's major product, ROSCOE<sup>R</sup>, accounted for approximately \$6 million in 1978 sales, which was 26.5% of total company revenues and 32% of SPD revenues.
- ADR Services, Inc. (ADRSI) provides professional services in the metropolitan Washington, DC area. This subsidiary accounted for approximately \$2 million of total revenues in 1978. ADRSI specializes in telecommunication, educational surveys, facilities management, financial management, and information systems for the government. Other specialties include transportation, environmental control, energy conservation, and education.
- ADR's research subsidiary, Massachusetts Computer Associates, Inc. (COMPASS), continues to contribute to the theoretical and practical aspects of computer science and has recently opened a West Coast office in Los Angeles.

## 3. SELECTION RATIONALE

- ADP has long been a leader in providing software to the computer industry. The most recent six or seven years have shown ADR to be a stable, growth-oriented company. Although the company is not "systems" oriented (that is, it does not produce a total system), it has strong systems consulting and marketing capabilities that could be a strong asset to Pitney Bowes.
- The company's senior management have been with the company for a long time and there is enough management depth to provide resources to Pitney Bowes without jeopardizing the stability of ADR itself.

- ADR's recent acquisition of INSYTE has given the company a very strong position in the data communications and data base management software business. This type of software will eventually be an integral part of full, "office-of-the-future" product lines.

## E. APPLIED DIGITAL DATA SYSTEMS, INC.

Applied Digital Data Systems, Inc.  
100 Marcus Blvd.  
Hauppauge, NY 11787  
(516) 231-5400

William J. Catacosinos, Chairman &  
CEO  
Public Corporation, NYSE

### 1. THE COMPANY

- Applied Digital Data Systems, Inc. (ADDS) was incorporated in 1969 to manufacture CRT terminals. ADDS claims to be the largest supplier of teletypewriter-compatible CRT terminals with 95,000 units installed in 1,365 customer companies.
- In addition, ADDS has introduced its "Regent" line, which is a series of intelligent terminals/microcomputers. ADDS has also recently added an end user software capability to produce and integrate applications software into the Regent hardware line.

#### APPLIED DIGITAL DATA SYSTEMS, INC. FIVE-YEAR FINANCIAL SUMMARY (\$000s omitted)

	1979	1978	1977	1976	1975
Revenues	\$51,898	\$46,888	\$33,150	\$23,437	\$17,807
Net Income	4,785	6,553	5,255	4,595	3,249

### 2. KEY PRODUCTS AND SERVICES

- At the present time, approximately 90% of ADDS revenues are derived from the sale of terminals primarily to the OEM market. The remaining 10% is derived from the sale of small business computers.



- ADDS is also attempting to penetrate the end user market by selling through exclusive and nonexclusive distributors.
- Currently, the ADDS software approach is to provide systems software together with BASIC and FORTRAN capabilities. Thus, ADDS users must have their own programming capability or purchase this capability from a third party.

### 3. SELECTION RATIONALE

- ADDS was selected on the basis of:
  - Its product line - a very well-accepted line of terminals together with a new, but well-formulated product in the small business computer area.
  - Its longevity and stability - the company has been in business for 11 years and has been consistently profitable.
  - Its management, which has been stable and strong. The company has been managed conservatively and has not experienced the wild fluctuations in income that have plagued many firms in the computer industry.
  - Its management also apparently recognizes the need to broaden its product line and produce general-purpose systems for the end user market.
- The only major negative factor is the lack of an in-house systems software capability. However, this is typical of companies at the ADDS stage of evolution. Until quite recently, general-purpose minicomputer manufacturers such as DEC, Data General, and Hewlett-Packard did not attempt to provide end user systems software.

F. BOWNE INFORMATION SYSTEMS, INC.

Bowne Information Systems, Inc.  
160 Water Street  
New York, NY 10038  
(212) 952-4400

Dale Ries, President and Chief  
Operating Officer  
Subsidiary of Bowne and Company,  
Inc.

I. THE COMPANY

- Bowne Information Systems, Inc. (BIS) developed its original approach to the marketplace by being one of the pioneers in the offering of word processing as an on-line, remote computer service and by staying with this service while some of its major competitors, notably IBM and VIP Systems, folded their operations.
- This longevity in the word processing marketplace, which is comparable to IBM-OPD's earliest word processing efforts, has given BIS important experience in two crucial areas of the business:
  - Word processing service operations. This experience has enabled BIS to become very cost effective and also have the flexibility to meet the peak load demands of its customers.
  - Word processing market experience. The knowledge of the marketplace gained over this ten-year period of participation has enabled BIS to recognize and respond to the technological changes in the marketplace such as in-house equipment, and also to develop a broad spectrum of newer and more functionally powerful services for particular customer and industry segments.
- The significance of this experience is that BIS has the knowledge of where and how to apply its marketing, sales, and new product development efforts and at the same time has the capabilities, including current profitability, to take advantage of this knowledge.

BOWNE INFORMATION SYSTEMS, INC.  
FIVE-YEAR FINANCIAL SUMMARY  
(\$000s omitted)

	1979	1978	1977	1976	1975
Revenues	\$18,000	\$10,240	\$ 8,310	\$ 7,665	\$ 5,335
Net Income	Unknown	1,314	595	716	586

## 2. KEY PRODUCTS AND SERVICES

- BIS' original product, the Word/One on-line service, is still the cornerstone of the company's operations.
- New types of communicating devices can now be connected from customer premises to the BIS computer systems in NYC through the newly announced "Bowne Connection" compatibility program.
  - Word processors such as IBM, Vydec, Xerox, Lexitron, CPT, Lanier, etc., can now be connected directly and Bowne plans on making the BIS system accessible to all major word processing devices.
- New types of software packages are being introduced which will allow BIS to penetrate deeper into vertical markets with extensive word processing operations.
  - One example of this is KeySearch, a system which enables attorneys to organize and retrieve documents in conjunction with major litigation.
  - Another example is COMSPEC, a computer-assisted specification preparation service used by architects, engineering firms, and government agencies to prepare and edit complex construction specifications. Several proprietary data bases of construction text are accessible through COMSPEC.

- As BIS customers grow, it may be economical for them to perform these word processing services on their own computers. BIS has packaged Word/One and KeySearch as program products and installed them on customers' computers.

### 3. SELECTION RATIONALE

- The basic reason for including BIS as an acquisition candidate is its leadership in providing word processing services. The company has been in business for over 10 years and, because of its parent's influence, has been in word processing in one form or another during its entire history.
- During most of its history, BIS provided word processing services by using standard timesharing technology. However, the recent BIS approach to linking the timesharing system to other vendors' word processing equipment represents a major advance. All of these approaches are very much oriented to the "office-of-the-future" concept and, thus, BIS has been included in spite of its relatively small size.

## G. CPT CORPORATION

CPT Corporation  
1001 Second Street South  
Hopkins, MN 55343  
(612) 935-0381

Dean F. Scheff, Chairman & CEO  
Gary R. Holland, President & COO  
Public Corporation, OTC

### I. THE COMPANY

- CPT Corporation was founded in Minneapolis in 1971. Its original purpose was to produce word processing equipment. The majority of CPT's revenues are still from the manufacture and sale of word processing equipment. Originally, CPT's systems all incorporated the IBM Selectric typewriter as the input device. Thus, CPT was dependent on IBM as a supplier. All of CPT's sales are to the end user marketplace.

#### CPT CORPORATION FIVE-YEAR FINANCIAL SUMMARY (\$000s omitted)

	1979	1978	1977	1976	1975
Revenues	\$34,385	\$20,287	\$13,025	\$10,941	\$ 7,660
Net Income	3,515	2,002	1,303	973	654

### 2. KEY PRODUCTS AND SERVICES

- Recently, CPT has introduced a daisy wheel printer manufactured by Qume as an alternative to the IBM Selectric typewriter.
- The newer CPT-8000 series of equipment (CRT word processor) can be equipped with communications interface boxes and used as a data terminal.
- In October 1979, CPT announced a CPT-8000 enhancement that allows the equipment to be used as a standalone small business computer. Memory and



logic was added to the CPT-8000, and an agreement was signed with Digital Research, Inc. to supply systems and applications software.

- In mid-calendar year 1979, CPT had an installed base of 20,000 units at approximately 15,000 customer locations.

### 3. SELECTION RATIONALE

- CPT is currently one of the largest independent word processing system vendors. It is a well-managed company and could provide Pitney Bowes with a strong entry into an expanded "front office" product line.

## H. CADO SYSTEMS CORPORATION

Cado Systems Corporation  
2730 Monterey Street  
Torrance, CA 90503

George Ryan, Chairman & CEO  
B. Allen Lay, President & COO  
Privately Held

### I. THE COMPANY

- Cado Systems Corporation was founded in 1973. The original CADO product line was plug compatible printers and CRT terminals. Since then, CADO has produced a family of word processing equipment and, more recently, a series of small business computers complete with end user applications software.

#### CADO SYSTEMS CORPORATION FIVE-YEAR FINANCIAL SUMMARY (\$000s omitted)

	1979	1978	1977	1976 (9 mos.)	1975
Revenues	\$28,044	\$11,955	\$ 4,345	\$ 752	-
Net Income	2,526	866	166	(107)	-

### 2. KEY PRODUCTS AND SERVICES

- While a breakout of revenues by product line is not readily available from CADO, the following estimates have been made (and not yet verified).
  - Message processing (intelligent and dumb terminals) 60%
  - Word processing 25%
  - Small business computers 15%

- Current marketing emphasis appears to be on the small business computer product line. CADO's recent marketing literature emphasizes the end user performing all three functions simultaneously on a single CADO installation.

### 3. SELECTION RATIONALE

- CADO is a relatively small company but has successfully made the transition from a terminal manufacturer to a supplier of word processing systems. The company is capable of producing its own software, as well as hardware, for a full range of word processing equipment.
- Management has exhibited a stability and financial ability that is relatively rare in the computer industry. Further, CADO's recent entry into the small business computer marketplace has been accomplished relatively smoothly. CADO's impact in this broader marketplace remains to be determined. Pitney Bowes' field structure could be extremely valuable when combined with a technologically sound company like CADO that does not have a national marketing or service capability.

## I. COMPUTER AUTOMATION, INC.

Computer Automation, Inc.  
2181 Dupont Drive  
Irvine, CA 92713  
(714) 833-8830

George Pratt, Chairman (outside investor)  
David M. Methvin, President & CEO  
Public Corporation, OTC

### I. THE COMPANY

- Computer Automation was founded in California in 1967. Its original product line was the so-called "naked mini" which was, and is, sold on an OEM basis. Originally, the Computer Automation naked mini was integrated into industrial products such as automated welding machines, medical equipment, and publishing equipment.
- During the last four years, Computer Automation has added peripherals, cabinetry, and software and has gone after the end user market through distributors and its own sales force. There are two end user product lines: PROTOS, a multiterminal, timesharing system and BASIC Desk, a single-station small business computer.

### COMPUTER AUTOMATION, INC. FIVE-YEAR FINANCIAL SUMMARY (\$000s omitted)

	1979 (9 mos.)	1978	1977	1976	1975
Revenues	\$52,084	\$61,380	\$43,038	\$30,398	\$21,372
Net Income	367	6,144	5,317	3,098	1,185

### 2. KEY PRODUCTS AND SERVICES

- Naked Mini Division - manufactures and markets to OEMs, basically in the process control market. Product price range is \$300-36,000.

- Commercial Systems Division - configures the large end of the end user product line. These systems are marketed as Sy FA systems and are basically oriented to distributed data processing applications.
- Industrial Products Division - markets computer-controlled testing equipment to end user electronics manufacturers under the trade name CAPABLE.
- The PROTOS system is Computer Automation's entry into the general purpose, small business, end user marketplace.
- As of mid-calendar year 1979, Computer Automation had installed approximately 25,000 systems.

### 3. SELECTION RATIONALE

- Computer Automation is one of the leading minicomputer manufacturers in the country. Formerly, it produced primarily "naked minis" for inclusion in other OEM products that required a built-in computer capability. The more recent commercial systems product line has resulted in a successful approach to the end user market.
- The company's management has proven itself to be above average even though its financial results have fluctuated. The firm has continuously broadened its product line, resulting in bottom line fluctuations, although it has been profitable since shortly after its inception.
- Computer Automation is now virtually a turnkey minicomputer manufacturer although it lacks an in-house application software capability. Aside from this shortcoming, it is, because of its size and product diversity, a reasonable acquisition candidate for Pitney Bowes.



## J. COMPUTER CONSOLES, INC.

Computer Consoles, Inc.  
97 Humboldt Street  
Rochester, NY 14609  
(716) 482-5000

Herman Affel, President and  
Chairman  
Public Corporation, closely held

### I. THE COMPANY

- CCI was founded in 1968 as an equipment manufacturer. Its first data management system was marketed in 1974 and that is when the company experienced excellent growth. The company has developed a good reputation within the Bell System for quality and good service and has been written up in several telephone company publications. Its main weakness is its high dependence upon the Bell system as a source of income. CCI has begun taking steps to correct this by offering ITT marketing rights to its services overseas and by developing plans to expand into banking and other public utilities, as well as blood banks.

#### COMPUTER CONSOLES, INC. FIVE-YEAR FINANCIAL SUMMARY (\$000s omitted)

	1979	1978	1977	1976	1975
Revenues	\$28,072	\$17,551	\$15,962	\$ 8,435	\$ 8,466
Net Income	3,505	1,234	794	(550)	905

### 2. KEY PRODUCTS AND SERVICES

- CCI markets turnkey data management systems, primarily to telephone companies. Specific products include:
  - DAIS, Direct Access Intercept System.

- DAS, Directory Assistance System.
  - DACIS, Direct Access Computer Information System.
  - DALARS, Direct Access Local Assignment Record System.
  - COPS, Circuit Order Preparation.
  - Facilities and Equipment System.
  - CCBS, Centralized Credit Bureau System.
  - Insurance Application Record Keeping.
  - Blood bank donor records, marketed through its subsidiary, IML.
  - 800 Number Automated System, marketed through its subsidiary, IML.
- As a supplier of turnkey products, CCI provides both the hardware and software to users. The total system usually consists of a computer data base control unit, with disk or tape storage, and a variety of input-output devices such as cathode ray tubes, printers, paper tape readers and punchers, and card readers. Multiplexers, data sets, communications controllers, and adapters are used as interfaces for both local and remote system configurations. In addition, CCI provides maintenance on its systems.

### 3. APPLICATIONS

- Major applications are designed for traffic departments of telephone companies:
  - Directory assistance.
  - Intercept for disconnected numbers.

- Telephone trunk assignment.
- Circuit and cable assignment.
- Customer information file.

#### 4. SELECTION RATIONALE

- Computer Consoles is a somewhat unique organization with a high degree of capability in systems design and implementation, as well as having a significant manufacturing operation. Furthermore, Computer Consoles has developed a sense of business expansion through application knowledge.
- In recent years, Computer Consoles' revenues grew to more than \$20,000,000 (estimated) in 1979. It has developed a strong management team headed by a very seasoned veteran of the computer industry, Mr. Herman Affel, with outstanding engineering and manufacturing executives. CCI's strength, vis-a-vis a possible affiliation with Pitney Bowes, stems from its experience and knowledge of large, complex, and highly reliable systems consisting of relatively low-cost, standard system components. The underlying skills in the areas of software and system integration provide an attractive and desirable new knowledge base.

K. COMPUTER TASK GROUP, INC.

Computer Task Group, Inc.  
800 Delaware Avenue  
Buffalo, NY 14209  
(716) 882-8000

Randolph Marks, Chairman  
David N. Campbell, President  
Public Corporation, OTC

## I. THE COMPANY

- Computer Task Group, Inc. (CTG) was founded in New York in 1966 by Randolph A. Marks, currently Chairman of the Board, and G. David Baer, Executive Vice President. Originally, CTG provided professional services, specializing in the hospital/medical field. In 1979, CTG management still considered professional services to be its primary business, but it also operates a computer center which provides data processing services and is engaged in the sale and installation of minicomputer systems as a distributor for BasicFour Corporation.

COMPUTER TASK GROUP, INC.  
FIVE-YEAR FINANCIAL SUMMARY  
(\$000s omitted)

	1979	1978	1977	1976	1975
Revenues	\$18,035	\$14,144	\$ 8,892	\$ 4,910	\$ 3,398
Net Income	1,005	525	328	(80)	139

## 2. KEY PRODUCTS AND SERVICES

- Seventy-seven percent (\$8.2 million) of CTG's computer services revenues are derived from professional services. These services are primarily provided to Fortune 500 level companies located in the Northeastern and Midwestern U.S. Areas of specialization include banking, discrete and process manufacturing, and criminal justice systems.

- The remaining 23% of computer services revenues (\$2.5 million) stem from data processing services performed at CTG's computer center in Buffalo. Computer center services are sold primarily to companies located in Western and Central New York. Facilities provided include interactive, remote batch, and batch services supporting IMS, CICS, and TSO. Areas of industry specialization include retailing, fund solicitation/direct mail, and general application areas through standard financial packages.
- BasicFour business systems are primarily sold to first-time users in the distribution and manufacturing industries, using a base of developed software with custom modifications. A specific CTG-developed package, CUMAS, has been installed in ten locations for credit union processing on a BasicFour.

### 3. SELECTION RATIONALE

- CTG is unique in its combination of products and services. The majority of its revenues are derived from consulting services. Thus, the company is in a position to provide Pitney Bowes' desired "window on technology." In addition, CTG provides a variety of computer services utilizing a number of different technologies. Finally, the company's experience providing software for, and distributing, Basic Four computers gives it an added dimension that is of value to Pitney Bowes.
- Management is recognized as being good and could provide Pitney Bowes with technological assistance without seriously disturbing CTG's own operations.



## L. COMPUTERVISION CORPORATION

Computervision Corporation  
201 Burlington Road, Route 62  
Bedford, MA 01730  
(617) 275-1800

Martin Allen, President  
Public Corporation, NYSE

### I. THE COMPANY

- Computervision Corporation (CV) was originally incorporated in Massachusetts in 1969; it was reincorporated in Delaware in 1975. Together with its subsidiaries, CV engages primarily in the design, development, manufacture, and marketing of computer-controlled design automation, manufacturing automation, and production automation products. These products, both hardware and software, enable users to automate certain repetitive design and manufacturing processes which generally are performed manually with conventional equipment.
- Sales in 1978 were 54% higher than 1977, reflecting a record demand for most of the company's products. Sales of CAD/CAM systems and products increased by 72%, and sales of semiconductor production automation products rose by 27% in 1978.
- Computervision's operations are separated into two divisions:
  - Productivity Systems Division, previously known as the Computer Aided Design and Manufacturing Division, develops and manufactures products for automating design processes. Products include those for electrical and electronic circuits and wiring systems, mechanical components and systems maps, drafting, piping layouts, and architectural design.
  - Cobilt Division is engaged in the business of designing, manufacturing, selling, and servicing a wide variety of products for use in the automated mass production of semiconductor components, principally integrated circuits and, to a lesser extent, thin-film and hybrid circuits.

COMPUTERVISION CORPORATION  
FIVE-YEAR FINANCIAL SUMMARY  
(\$000s omitted)

	1979	1978	1977	1976	1975
Revenues	\$131,550	\$71,601	\$46,381	\$33,555	\$21,645
Net Income	12,960	5,212	2,741	1,729	(4,134)

## 2. KEY PRODUCTS AND SERVICES

- The Productivity Systems Division currently contributes over 67% of Computervision's consolidated revenues. This division is responsible for the development and marketing of a line of CAD/CAM systems sold under the name Designer. Designer is a turnkey minicomputer system sold with proprietary software and specialized interactive graphics terminals.
- The minicomputer used in the Designer system, a CGP<sup>TM</sup>-100, is manufactured by Computervision. Introduced in late 1977, management claims it is the first computer designed specifically for interactive graphics applications. Over 300 CGP-100s have been delivered to date. Price of the product ranges from \$200,000 to \$800,000.
- In 1978 the Productivity Systems Division introduced a new operating system for the CGP-100 called Computervision Graphics Operating System. The new operating system makes it possible for other application software to take full advantage of the graphics-oriented hardware features and capabilities incorporated in the CGP-100.
- CV applications software packages are sold only in combination with Designer System hardware as a turnkey system. The software includes CADDS 3, Viewports, Data Extract, CVNET, Hidden Line, and AUTOROUTE.

- The Cobilt Division contributes approximately 32% of total company revenues. The division offers production automation products used in integrated circuit and thin-film circuit production and testing. These products include a family of automated and manual contact mask aligners, wafer processors, and wafer testers.

### 3. SELECTION RATIONALE

- Computervision is, to date, totally dedicated to providing products and services to the manufacturing industry. Within this selected market the company has excelled. Management is strong and the financial results are indicative of management's abilities.
- Computervision has been able to provide both services and, more recently, a CAD/CAM minicomputer system for manufacturers. The firm has been included due to its management strengths and its recognized position in its selected marketplace.
- The only serious disadvantage is its single-industry marketplace, although the manufacturing industry is the single largest market segment in the country.

## M. COMSHARE, INC.

Comshare, Inc.  
3001 So. State Street  
Ann Arbor, MI 48106  
(313) 994-4800

Richard L. Crandall, President  
Public Corporation, OTC

### I. THE COMPANY

- Comshare, primarily a remote computing services vendor, increased its revenues from \$12.3 million to \$13.7 million between 1975 and 1976, a growth of 11.4%. U.S. sales in 1977 reached \$18.2 million, a growth between 1976 and 1977 of 32%.
  - Eleven percent, or \$2.0 million, of the 1977 revenue increase resulted from two acquisitions:
    - Trilog, specializing in computer-based employee benefit administration and reporting services.
    - Systematic Computer Systems, Inc., specializing in tax return processing.
  - After-tax earnings rose to \$1,475,000 in 1977, a 105% growth over the \$720,000 in 1976. Earnings per share during the same period rose 83% from \$.52 to \$.95 with average outstanding shares of 1,548,000.
- Unconsolidated 1977 overseas revenue from affiliated companies brought total revenues for the entire Comshare group to \$30.7 million. Equity in earnings of affiliated companies was \$66,000 in 1977 compared with the 1976 loss of \$129,000.
- Comshare has made major efforts:

- To focus its resources on specialized markets and applications.
  - To expand overseas by developing local operations in each country.
  - To maximize the value added in each of the services it provides.
- Industry Markets - Comshare markets to a wide variety of industries. Its industry-specific accounting and telephone company product lines along with two industry-independent personnel and financial product lines generated approximately 50% of 1977 revenues. Remaining revenues are derived from generalized and data management services.
  - Geographic Markets - Fifty-four cities across the U.S., Canada, Europe, and Japan. U.S. revenues are spread throughout the country with some concentration in Washington and Montana.

COMSHARE, INC.  
FIVE-YEAR FINANCIAL SUMMARY  
(\$000s omitted)

	1979	1978	1977	1976	1975
Revenues	\$52,980	\$25,639	\$18,213	\$13,758	\$12,312
Net Income	4,732	3,413	1,475	720	755

## 2. KEY PRODUCTS AND SERVICES

- Comshare's specialty products include:
  - COMPASS, generating \$2.7 million in revenues. It provides professional accounting services to accounting firms. It is used by over 1,600 accounting firms, including 28 of the 30 largest CPA firms in the country. Comshare has been selected by the American Institute of CPA's as the source of professional national program library services. Functions performed include general ledger, project accounting, internal time and billing, staff scheduling, auditing, and tax processing.



- 4.1.1 Systems for telephone equipment inventory and number assignment generating \$2.2 million. Designed for telephone companies, it balances central switching office traffic and manages, assigns, and forecasts central office equipment. It is used by six of the 19 Bell Telephone operating companies and by two of the 10 major independent telephone companies.
- Human resource management software, PRO/FILES and EBS, generating \$2.3 million revenues. PRO/FILES is a human resource management system designed for personnel managers to create inventories of employee skills, perform statistical analysis, forecast workforce requirements, and prepare reporting information required by the EEO and Affirmative Action. EBS is a product for employee benefit recordkeeping and administration and is sold primarily to corporate clients and banking institutions.
- Comshare's financial products and services, including its replacement cost accounting software, VSCOM-190, generate \$1.6 million in revenues.

### 3. APPLICATIONS

- Specialty applications are Comshare's primary source of domestic revenues in 1977, as shown below:

	<u>1977 \$U.S.</u>	<u>% Total U.S. \$</u>
- Specialty	\$ 8.8M	48%
- Data Base Management	5.8	32
- Utility	<u>3.6</u>	<u>20</u>
	\$18.2M	100%

- Comshare's network of 78 Interdata minicomputers and Xerox Sigma 9s provides remote computing services utilizing proprietary software called Commander II. The Commander I service is supported by 10 Xerox 940s. The company also has an IBM 360/65 in Philadelphia. A cable link to the company's European affiliate's data center in London, England enables international customers to access Commander II services on either side of the Atlantic.
- The company and its international affiliates operate four data centers: Ann Arbor, London, Tokyo, and Toronto.

#### 4. SELECTION RATIONALE

- Comshare is one of the best managed on-line computer services companies in the country. The company has a particularly strong software development capability. In addition, Comshare's management is quite strong and could prove to be of assistance to Pitney Bowes in its plans to enter higher-technology markets.
- Comshare's 4.1.1 system has given it an entree into the "office of the future." This could be leveraged by Pitney Bowes into a more complete product line.

## N. DISPLAY DATA CORPORATION

Display Data Corporation  
11350 McCormick Road  
Hunt Valley, MD 21031  
(301) 667-9211

Robert Leatherwood, Chairman  
Paul Naumann, President  
Privately Held Corporation

### I. THE COMPANY

- Display Data began operations in October 1973. It delivered its first In\*sight system to an automobile dealer in Baltimore in January 1974. By August 1977 the company had installed about 175 systems, mostly in automobile dealerships. It has opened 17 branch offices, and plans additional expansion in its product line, industry areas covered, and branch office locations.
- The In\*sight system is a turnkey system, and normally all programming is done by Display Data, but the systems tend to be installed in the same manner as user-programmed ones; i.e., basic functions are installed first and additional functions are implemented over a period of time.
- The auto dealers share a common reporting system to each of the major manufacturers. This provides a large base of common applications. In addition, many auto dealers are already familiar with data processing, usually through a service bureau specializing in their applications.
- The company is now expanding its applications into other industry areas. A Contractor System has been officially released and is being marketed in the Baltimore area, and a Wholesale Distributor System has also been released. Consideration is also being given to specialized systems for CPA firms; automobile parts distributors; licensed beverage distributors; sand, gravel, and concrete distributors; and printers.
- The company is privately held and there are no publicly available financial figures. D&B indicates that 1979 revenues were approximately \$27,000,000.

## 2. KEY PRODUCTS AND SERVICES

- Three applications packages are currently offered: Auto Dealer, Contractor, and Wholesale Distributor.
  - The Auto Dealer package is tailored for the particular reporting requirements of each automobile manufacturer. Display Data has installed packages for General Motors, Ford, Chrysler, American Motors, Jeep, truck manufacturers, and foreign manufacturers. The package consists of the basic Auto Dealer System and a series of optional modules including Parts Inventory - Back Office, Parts Inventory - Counter Billing, Leasing, Service, Merchandising, and Sales Prospecting.
- The Basic Auto Dealer System includes a variety of programs to accomplish general ledger, accounts receivable, accounts payable, purchasing and receiving, and payroll functions. All of these, except payroll, are accomplished within the context of a single "interface" with the user. In general, a two-level "menu" approach is used to select the operation performed.
- The first level provides selection among only six categories: Utilities, Disk File Set-Up, Inquiry Programs, Transaction Entry, Prints, and Log Off (system shutdown). Each of these categories possess a second level of program selection. The Transaction Entry and Prints categories are the ones used for most day-to-day operations. The Inquiry Programs category provides access to the parts inventory, auto service transaction, and system operating instruction files only. General inquiry for master file records and previous transactions in the current accounting cycle is handled through the Transaction Entry category of programs.
- A long list of programs is provided under the Transaction Entry category for transactions such as general journal entry, new car sales, used car sales - retail, repair orders, internal sales, fleet sales, parts, body shop, repair orders, cash receipts, cash disbursements, new car purchases, etc. Each of these



transactions in effect corresponds to a journal entry in a double-entry bookkeeping system. The reason many specific types of transactions are identified, rather than one general type, is to permit close identification of the system's operation with the documents that are created during the normal course of the auto dealer's business. For any of these transaction types, the user has the option of creating automatic, general ledger account entries so that the operator has only to enter amounts. The automatic account numbers are displayed with the names of the accounts to permit easy operator identification. The automatic numbers can be overridden for special handling of certain transactions.

- The applications software furnished includes essential accounting functions such as general ledger, accounts receivable, accounts payable, billing, inventory control, and payroll. The software is tailored to the peculiarities of each individual installation and is installable in free-standing modules. While any level of programming can be negotiated, users naturally tend to minimize changes from the basic approach of the existing packages in order to minimize their costs. Software is separately priced and ranges from about \$1,500 for a single program for payroll to about \$15,000 for a complete auto dealer set. Custom programming increases this cost.

### 3. SELECTION RATIONALE

- Display Data is an extremely well-managed turnkey system vendor. Although the majority of its current business is oriented towards automobile dealers, it has successfully entered a broader market; i.e., wholesalers and distributors.
- The company has been included because of its proven ability to make a successful transition from a narrow to a broad marketplace, and because of its management strengths.



## O. INFORMATICS, INC.

Informatics, Inc.  
21031 Ventura Blvd.  
Woodland Hills, CA 91364  
(213) 887-9040

Dr. Walter F. Bauer, President  
Public Corporation, OTC

### I. THE COMPANY

- For 17 years, Informatics has provided custom programming services. The company now achieves all of its revenues from software product sales, professional services, and processing services.
- In 1974, Informatics was acquired by The Equitable Life Assurance Society of the United States. In October 1979, Informatics became a public company with stock trading on the over-the-counter exchange. The Equitable still retains a 63% ownership of Informatics.
- Informatics' revenues in 1978 increased to \$92,507,000, up 24% from 1977 revenues of \$74,768,000. Income before taxes was up 141% to \$3,233,000, over 1977 income of \$1,340,000. Net income in 1978 was a gain of 188% over 1977, although a portion of this gain is attributed to an extraordinary item.
  - Revenues for the nine-month period ended September 30, 1979 were up 26% to \$80,571,000 as compared to 1978 revenues for the same period of \$63,854,000.
- As shown in the following five-year financial summary, Informatics was not profitable for a three-year period (1974-1976).
  - A five-year plan was formulated in 1974 which called for a significant investment in new products and services. Losses were envisioned by management for the 1974 through 1976 period when the company expended considerable sums in the development and purchase of new

software products (including a multimillion dollar investment in the development of LIFE-COMM<sup>R</sup>), and expenditures associated with the development of a computer and communications network.

- These losses were also due to the substantial write-off of the purchase of Informatics by The Equitable.

INFORMATICS, INC.  
FIVE-YEAR FINANCIAL SUMMARY  
(\$000s omitted)

	1979	1978	1977	1976	1975
Revenues	\$112,388	\$92,507	\$74,768	\$58,743	\$38,982
Net Income	4,470 (A)	2,703 (A)	940	(1,905)	(4,468)

(A) Includes extraordinary credit for provision of federal income taxes and a portion of the provision of state income taxes that was offset by the utilization of operating loss carry-forwards.

## 2. KEY PRODUCTS AND SERVICES

- The three principal business segments of Informatics are:
  - Software Products, which develops and markets system and application products.
  - Professional Services, which provides programming support to a wide variety of clients in commercial and government sectors.
  - Information Processing Services, which provides consulting services and offers processing services from four data centers with regional specialties:
    - Fairfield, NJ provides general timesharing and remote processing, network-based services.

- . Columbus, OH provides proprietary data services to the whole-sale distribution industry, principally drug, hardware, and industrial supply distributors.
  - . Riverdale, MD offers manual and automated data base and document handling systems which are used in the development of legal, bibliographic, library retrieval systems, clearinghouse operations, and photocomposition services.
  - . Dallas/Ft. Worth Center offers processing services using the LIFE-COMM insurance system.
- Approximately 36% of Informatics' 1978 revenues were derived from processing services, 34% from software product sales, and 30% from professional services.

### 3. SELECTION RATIONALE

- Informatics has been included because of its diversity of products and services. The company has an exceptionally well-organized software development capability, and a variety of service delivery capabilities.
- Senior management has had its problems although middle-management is deep and capable. Some of Informatics' past problems are probably due to the influence of its previous parent (Equitable Life Assurance), and the company now seems to be more viable since the spinoff from Equitable. Its consulting assistance and technologically innovative capabilities could prove to be of significant value to Pitney Bowes.

P. MANUFACTURING DATA SYSTEMS, INC.

Manufacturing Data Systems, Inc.  
4251 Plymouth Road  
Ann Arbor, MI  
(313) 995-6000

Kenneth R. Stephanz, President and  
CEO  
Public Corporation, OTC

I. THE COMPANY

- MDSI has developed a tight relationship with a large number of key customers in its selected market. These customers include some of the largest manufacturers in the world as well as many small establishments.
- The company has a good basic product in an area which MDSI is the acknowledged expert. The edge has been expanded by organizing for and providing extensive support to its customers during both the system installation phases and the continuing applications phase.
- The long-term significance of this is that MDSI has become the industry leader, a position from which its customers, and the rest of the industry, follow MDSI's direction. This could lead to an even tighter lock on MDSI's piece of the entire N/C industry and its standards and practices.
- The short-term significance of this market edge is that MDSI has been achieving spectacular growth in revenues and profits.

MANUFACTURING DATA SYSTEMS, INC.  
FIVE-YEAR FINANCIAL SUMMARY  
(\$000s omitted)

	1979	1978	1977	1976	1975
Revenues	\$41,000	\$28,797	\$22,193	\$16,292	\$11,583
Net Income	4,300	3,358	2,440	1,747	1,194

## 2. KEY PRODUCTS AND SERVICES

- MDSI's basic product is a software package called COMPACT II which generates control tapes for numerically controlled machine tools.
- This software package is delivered to end user manufacturing firms in a number of ways:
  - Via remote computing services.
  - Via special minicomputer systems sold by MDSI.
  - Via COMPACT II packages installed on the manufacturers own main-frame computer.
- The remote computing service access is the original method of delivering the product and still represents two-thirds of MDSI's annual revenue.
- To use this remote computing service, the user would enter the dimensions and other variables describing the part to be machined using a standard time-sharing terminal. The machine tool which is going to be used to make that part will also be defined. The remote computer, using COMPACT II, would analyze the input data, ask for corrections where necessary, and would then send back to a paper tape punch, usually on that same timesharing terminal, the necessary code to allow the resultant punched paper (or Mylar) tape to be used directly on the numerically controlled machine tool.
- For high-volume users, MDSI has developed two versions of a specialized minicomputer system which would replace the remote computer service and perform the same functions.



### 3. SELECTION RATIONALE

- MDSI is one of the true success stories in the computer services industry. Its growth stems primarily from unique application knowledge and a strong management group with a focused set of business objectives.
- The desirability of MDSI as an acquisition candidate centers not only on its unusually good profit growth, but also on its recent (2-3 years) push to diversify in terms of products and distribution methods.

Q. MOHAWK DATA SCIENCES CORPORATION

Mohawk Data Sciences Corporation  
1599 Littleton Road  
Parsippany, NJ 07054  
(201) 540-9000

Ralph J. O'Brien, Chairman & President  
Public Corporation, NYSE

I. THE COMPANY

- Mohawk Data Sciences is approximately fifteen years old. Initially, the company was engaged in the manufacture and sale of peripheral devices, data entry equipment, and data transmission devices.
- More recently, the company first expanded into providing distributed data processing systems, then, ostensibly, into providing small business computer systems. The distributed data processing systems were (are) actually multi-terminal data entry/data collection systems; there was no attempt by Mohawk to provide applications software. Nor was there an attempt to provide sufficient logic or memory for heavy computation purposes.
- During the past few months, Mohawk has implied that it might enter the small business computer market. As an opinion, this is a move that is almost inevitable for the company. However, at this point in time, the company still must face the task of building (or buying) the required system and application software capability. Mohawk has an in-house software capability at this time, but it is oriented towards specialized systems software and could not develop or support applications software.

MOHAWK DATA SCIENCES CORPORATION  
FIVE-YEAR FINANCIAL SUMMARY  
(\$000s omitted)

	1979	1978	1977	1976	1975
Revenues	\$178,262	\$152,629	\$146,057	\$161,672	\$170,109
Net Income	9,553	6,259	4,553	13,560	(21,677)

## 2. KEY PRODUCTS AND SERVICES

- Mohawk continues to produce and market a full line of terminals, as well as data communication equipment and computer peripherals. More importantly, approximately two to three years ago Mohawk started its transition to a systems-oriented company when it introduced its Series 21 product line. The Series 21 product is not a general-purpose computer series, but it is more oriented to providing sophisticated data entry and data retrieval functions. In particular, the company has recently expended significant resources on Series 21 word processing software.
- In January, 1979, Mohawk acquired Trivex, Inc., a California-based company engaged in the manufacture of data editing equipment.
- Most significantly, from Pitney Bowes' point of view, Mohawk has recently announced the packaging of certain Series 21 hardware components with the applicable software such that it is now promoting a Series 21 electronic mail system for intra-company use.

## 3. SELECTION RATIONALE

- Mohawk Data Sciences has been included as an acquisition candidate in spite of the fact that it is clearly outside the initial financial parameters. Mohawk is a company that possesses all of the various technical components that should be of interest to Pitney Bowes; i.e., hardware manufacturing, software development, R&D, and an international marketing and field service structure.
- Further, Mohawk's new management has been in place long enough to demonstrate a solid track record and, thus, the company appears to have progressed beyond the financially unstable condition it was in prior to 1976.

- The only significant negative factor is that Mohawk has not yet made the transition to a full systems capability. That is, the product line does not now include full systems and application software that would enable Mohawk products to be used as a general-purpose small business computer.
- As a further comment, Ralph O'Brien has, since becoming CEO and COO, built a strong, business-oriented management group. Prior to his chairmanship, the company was managed by executives who had engineering backgrounds and tended to neglect certain other key areas.

## R. NLT COMPUTER SERVICES CORPORATION

NLT Computer Services Corporation  
National Life Center  
Nashville, TN 37250  
(615) 256-7600

Douglas C. Alterbern, President  
Subsidiary of NLT Corporation

### I. THE COMPANY

- NLT Computer Services Corporation (NLTCS) was formed in 1969 by its parent company, NLT Corporation. The parent organization is a large holding company primarily engaged in insurance, broadcasting, amusement park, hotel services, and real estate development.
- NLTCS was originally formed with the intention of providing computer services to organizations within NLT and to enter the EDP services industry by selling excess computer time and services to outside organizations. Providing services to other affiliated companies within NLT never occurred because of an internal reorganization. Emphasis was then placed on developing NLTCS into a traditional data processing service organization.
- NLTCS started in 1969 from a six-man organization which did not have a specific product or service for the data processing services industry, and grew to 500 employees and approximately \$21 million in revenues ten years later.
- The following is a chronology of NLT's growth by acquisition:
  - 1969 to mid-1970: Selling excess computer time from an NLT affiliate's data center and providing some technical consulting services.
  - Mid-1970: Acquisition of COMPASS Computer Systems of Nashville which provided traditional consulting services on a custom basis and were experienced in operating systems, text editing, mapping, and demographic application areas.



- 1971: Acquisition of Southern Computing, Inc. of Nashville which provided processing services to handle subscription fulfillment and computer output microfilm services as well as traditional accounting applications.
- 1972: Acquisition of Datafile, located in Philadelphia, which was a subsidiary of Mechanical Technology, Inc. Datafile provided on-line processing services for hard goods wholesale distributors. In 1972, NL TCS also began providing COM services in Nashville.
- 1973: A Memphis office was opened to provide COM services.
- 1974: Acquired a Nashville mail service business to supplement a growing involvement in providing computer services to fund raisers.
- 1975: Acquired Management Services for ADP in Philadelphia which provided traditional data processing services based on Burroughs equipment for consolidation with Datafile operations.
- 1976: Acquired Information Systems Development in Kansas City which provided general processing services and on-line processing services for the banking industry. In 1976, NL TCS also began marketing BasicFour minicomputer systems in Nashville and Memphis.
- 1977: Acquired Data Services, a local data processing services organization in Nashville which concentrated in standard accounting application services to small and medium-sized customers. In this same year NL TCS acquired three data centers from Analysis and Programming, Inc. in Beloit, WI, Memphis, and Washington, DC. These acquisitions also gave NL TCS the software right to TEXT/MASTER, a text processing system.

- 1978: Announced a standalone minicomputer system, NLTCS System V, based on Datafile software. Computer Resources, Inc., a small service bureau in Kansas City, was also acquired.
- 1979: Acquired Alpha Data Sciences in Madison, WI which provides COM services from locations in Madison, Wausau, Appleton, and Eau Claire, WI; and Rockford, IL.
- Management states NLTCS has been profitable since its formation, with the exception of 1970. A five-year summary of NLTCS' revenues and growth rate follows:

NLT COMPUTER SERVICES CORPORATION  
FIVE-YEAR FINANCIAL SUMMARY\*  
(\$000s omitted)

	1979	1978	1977	1976	1975
Revenues	N/A	\$21,000	\$16,000	\$10,500	\$ 6,000

\*All figures are estimates

## 2. KEY PRODUCTS AND SERVICES

- Approximately 70% of NLTCS' computer services revenues are derived from processing services, 15% from turnkey systems, and 15% from micrographic services and supplies.
- Datafile, a series of applications directed exclusively for use by hard goods wholesale distributors, is offered on NLTCS' on-line network service from Blue Bell, PA and is also sold in a series of standalone minicomputer configurations.
  - The on-line network service currently has 55 clients, the majority of whom are in the Eastern half of the U.S. (30 states). Applications supported are:

- . Accounts receivable.
  - . Billing.
  - . Matrix pricing.
  - . Accounts payable.
  - . General ledger.
  - . Payroll.
  - . File management.
  - . Order entry.
  - . Inventory control and management.
  - . Open order system.
  - . System selling.
  - . Basic sales reporting.
  - . Advanced sales reporting.
  - . Datafile report generator.
- In 1978, NLTCs introduced "The First Family." This offering consisted of seven different configurations of standalone minicomputers using the Datafile software and MICOS operating system.
- . System V/Models 10, 20, and 30 are based on NLTCs System V intelligent terminals and are connected to the NLTCs data

center. Price of these systems range from \$20,000 to \$40,000. Approximately 40 are currently installed at client locations.

- . System V/Models 100, 200, 400, 800, and 1600 are total stand-alone systems. Based on Data General's NOVA computers, the price for a minimum configuration is about \$43,000 and ranges to \$240,000 for a maximum system. Application software is the same as that available on the network service. NLTCS has installed five of the standalone versions.
- Processing services to banks are provided from the NLTCS data center in Kansas City. Approximately one-third of the revenues from this center are from banking applications with the remainder generated from general processing services.
  - Available banking applications are:
    - . Certificate of deposit.
    - . Commercial loan.
    - . Demand deposit.
    - . General ledger.
    - . Savings accounting.
    - . Automated teller machine processing.
  - Processing is available in batch, remote batch, and interactive modes. A central information file integrating all applications is available to on-line users.

- There are approximately 35 banks in the Kansas City area using this service.
- NLTCS provides custom developed processing services from its data centers in Nashville and Kansas City, in addition to the following application products:
  - Accounting services.
    - . General ledger, payroll, accounts payable, and receivables.
  - Educational.
    - . Classroom scheduling and grade reporting.
  - Association management systems.
  - List management services.
  - Attorney billing management system.
  - Text processing system (TEXT/MASTER).
  - Data management.
    - . TOTAL, DATACOM DB/DC, and ENVIRON.

### 3. SELECTION RATIONALE

- Due to its rapid growth through diversified acquisitions, NLT Computer Services contains a great variety of applications and technology. Its recent approach to providing turnkey minicomputer systems gives it a dimension that many computer service companies do not have.



- NLT's management is strong and diverse. Much of the acquired management has been retained so that management depth is significant.
- We do not know NLT's degree of profitability, as these figures are not made available. Our estimates would be that after-tax margins are in the 8-10% range.

## S. NATIONAL DATA CORPORATION

National Data Corporation  
Corporate Square  
One National Data Plaza  
Atlanta, GA 30329  
(404) 329-8500

L. C. Whitney, President and Chief  
Executive Officer  
Public Corporation, OTC

### I. THE COMPANY

- National Data Corporation (NDC) was incorporated in 1967 in Delaware to provide specialized data processing and facilities management services. Services provided to customers are cash management services, credit card and consumer services, and health care services. Facilities management services include all phases of credit card billings from credit approval through collections.

#### NATIONAL DATA CORPORATION FIVE-YEAR FINANCIAL SUMMARY (\$000s omitted)

	1979	1978	1977	1976	1975
Revenues	\$49,360	\$39,160	\$ 3,668	\$31,296	\$29,257
Net Income	4,227	3,196	2,477	2,036	1,734

### 2. KEY PRODUCTS AND SERVICES

- Thirty-six percent of NDC's total revenues are derived from Cash Management and Management Information Services. NDC offers Cash Management services to 1,000 banks and 3,000 corporate users in the U.S. and 44 other countries. These financial services consist of a bank deposit reporting service, bank balance reporting service, a money transfer service, remittance processing/data capture, information reporting, and data exchange.

- NDC's Bank Credit Card Systems account for 26% of revenues and are currently being used by approximately 200 banks serving over two million retail merchant locations. The Bank Card System provides authorization, consumer billing, merchant accounting, and management information.
- In addition, NDC's credit card services business is a rapidly growing consumer services business, which accounted for 6% of total revenue in 1979. NDC uses its six communication centers to process consumer orders in accordance with merchandiser requirements. NDC is able to handle large volumes of telephone orders and to process and distribute the data rapidly to designated shipping locations.
- Two percent of NDC's 1979 revenues were derived from health care services. A computerized pharmacy management system called DataStat<sup>R</sup> is being marketed by NDC and 300 systems have been installed. McKesson Drug Company markets DataStat under its own trade name, Econoscript, and is in the process of fulfilling its agreement with NDC to sell and install 1,500 systems. NDC is targeting independent retail and chain pharmacies as well as pharmacies servicing nursing homes.
- Twenty-six percent of NDC's revenues were derived from facilities management contracts for credit card billing services. Of that 26%, Atlantic Richfield Company accounts for 23%.
- The acquisition of Interactive Sciences Corporation (ISC) gave NDC expanded capabilities in timesharing technology, modeling, forecasting, and management reporting. In July 1979, ISC was awarded a six-year contract by the Federal Election Commission in Washington, worth approximately \$3.5 million. Under this contract ISC will supply the FEC with total computer services needed to support the Federal Campaign Financing Compliance and Reporting System.

### 3. SELECTION RATIONALE

- NDC was included because the company is an "old line," well-managed, computer service company. Management is exceptionally strong and deep.
- The company's product line is varied, and its application of high technology to various services has been sound.
- A serious disadvantage to considering NDC as a Pitney Bowes acquisition candidate is the company's lack of any entree to front office or "office-of-the-future" applications.

## T. PLANTRONICS, INC.

Plantronics, Inc.  
10443 Bandle Drive  
Cupertino, CA 95014  
(408) 996-9606

Jack W. McKittrick, Chairman & CEO  
William L. Martin, President & COO  
Publicly Owned, NYSE

### I. THE COMPANY

- In 1961 in Santa Cruz, California, Jack McKittrick (the present chairman), Courtney Graham (the recently retired chairman), and Keith Larkin, all of whom were aircraft pilots, developed and started to produce radio communication headsets for pilots and other aircrew. The advantage of these new headsets was their light weight as compared with those then in common use. Their first sales were to the aircraft industry and to air traffic control personnel.
- Shortly thereafter, the company, Plantronics, started to sell these lightweight headsets to the telephone companies for use by telephone operators. A close working relationship was developed with various components of the Bell System. Of great aid in the establishment of this relationship with the Bell System was the FCC Docket #19129 which resulted in AT&T setting up a Purchased Products Department for handling such relationships with outside suppliers.
- Since that time, Plantronics has sold over two million of these headsets to Bell and through Bell to its customers. These headsets, called Star Sets, still represent almost one-third of Plantronics total revenue.
- In 1968, Plantronics acquired Frederick Electronics, whose principal product is computer-based telex switching systems, primarily sold to foreign communication administrations.



- In 1973, Plantronics acquired Kentrox Industries, a manufacturer of telephone transmission equipment used in the central office of telephone companies.
- In 1976, it acquired Action Communications Systems, a producer of message switching processors and of the WATSBX, a computer-based telephone management system.
- In 1978, Plantronics acquired Zehntel, Inc., a manufacturer of telephone test equipment.
- The combination of these acquisitions plus continuing substantial growth from its original line of headsets has taken the company in the last ten years from \$7 million in annual revenues to today's \$87 million. Net earnings have grown at a corresponding rate.

PLANTRONICS, INC.  
FIVE-YEAR FINANCIAL SUMMARY  
(\$000s omitted)

	1979	1978	1977	1976	1975
Revenues	\$86,578	\$69,311	\$57,735	\$39,814	\$31,137
Net Income	8,731	7,895	6,020	4,606	3,395

## 2. KEY PRODUCTS AND SERVICES

- All of Plantronics' products and subsidiaries are basically related to the field of telecommunications.
- The original, lightweight headset is produced in over 115 variations for different customers' requirements. Specially designed headsets from Plantronics were used in all of the NASA manned space flight programs.
- A centralized telephone answering system called CentraVox has been sold to telephone companies for use in central offices.

- A computer terminal, called Vu Set, designed to operate in conjunction with touch-tone telephones, has been approved as a company-wide standard by the Bell System for sale by Bell to its customers. While an interesting concept, the Vu Set has not lived up to Plantronics' marketing expectations.
- The telex switching systems from Frederick, marketed under the name Eltex, have been successfully sold to many foreign communication administrations. The latest version, Eltex V, developed in conjunction with cable and wireless, have been ordered by a number of customers.
- The WATSBOX from Action Communication Systems has been supplemented by larger telephone management systems called Roadrunner/Apex, introduced in 1978. These systems are built to operate in conjunction with telephone company equipment rather than to replace it. One recent enhancement to these systems has been voice recognition equipment which would enable field sales staff, for example, to call into the system, giving their authorization code and requested telephone number.
- Test equipment and telephone transmission devices round out Plantronics' broad line of telecommunications-related products. The most sophisticated of these products is the Troubleshooter line which can test, diagnose, and print out repair instructions for complex printed circuit board assemblies, including units with microprocessors on-board.

### 3. SELECTION RATIONALE

- Plantronics is one of the leading manufacturers of intra-office communications equipment. The company's growth has been well managed, and the upper and middle management groups are capable and well staffed.

- It is INPUT's belief that Plantronics has a strong position in the "office-of-the-future" marketplace. To the best of INPUT's knowledge, Plantronics has not yet attempted to integrate its internal communications capability with other products (e.g., word processors, facsimile transmission). This next logical step is well within the company's technological capabilities.

## U. PRIME COMPUTER, INC.

Prime Computer, Inc.  
40 Walnut Street  
Wellesley Hills, MA 02081  
(617) 879-2960

Kenneth Fisher, President  
Publicly Owned, NYSE

### I. THE COMPANY

- Prime Computer was founded in 1972. It manufactures and markets mini-computer hardware and develops operations and applications software primarily for the end user market. Prime buys hardware peripherals for its systems. It provides its own maintenance.
- Prime has established a subsidiary in France - Prime Informatique - and several new field offices in the U.S. It is considering acquisition as a means of growth.
- Early in 1977, Prime had public offerings through Smith Barney. The company netted \$5 million from the sale of 508,000 shares.
- Fiscal 1978 revenues rose to \$93.6 million, 87% above the \$50 million of the previous year. Even more impressive, net income increased 114% from \$3.9 million in 1977 to last year's \$8.4 million.
- Over half, \$62.7 million, of total revenues were generated by the sale of large-scale minicomputers in the United States.
- Prime is uniquely positioned among the minicomputer makers as an end user company. During 1978, approximately 93% of total revenues were derived from end users, with the balance attributable to OEM sales.

- The strength of Prime's customer base remains industrial, commercial, educational, and scientific. Last year, the company significantly expanded that base with the addition of major corporations and educational institutions. During the year, no one customer accounted for more than 5% of sales.
- Among 1978's highlights were the listing of the company's stock on the New York Stock Exchange, the introduction of the 350 system, and the formation of Prime de Puerto Rico, its first manufacturing subsidiary outside this country. Finally, Prime recorded quarterly sales exceeding \$100 million on an annualized basis for the first time in October of last year.
- In 1978, Prime developed the widest array of new products in its history. The company announced four new compatible computers: the 450, 550, 650, and 750 systems. Prime also developed new software for debugging all of its systems, and developed a wide range of other products to upgrade or support the current line of DP systems.
- In another area of growth, Prime's facilities increased just over 49% to 479,000 square feet. The company expects the physical additions to enable it to meet the demands for services and products when the company reaches the \$250 million sales level.

PRIME COMPUTER, INC.  
FIVE-YEAR FINANCIAL SUMMARY  
(\$000s omitted)

	1979	1978	1977	1976	1975
Revenues	\$86,600	\$69,300	\$53,700	\$50,000	\$11,300
Net Income	8,700	7,900	5,600	2,400	692

## 2. KEY PRODUCTS AND SERVICES

- Prime manufactures its own minicomputers around which it builds small business computers. It provides its own maintenance for hardware and software.



- CRTs and teleprinters can apparently be run by the basic system at remote locations.
- Prime's product line, originally and currently, is built around advanced architecture, multiple-user minicomputer systems. These super-minis, in which Prime was one of the pioneers, bring big computer capability down to the budget range of medium and small users.
- In addition to pioneering in the use of minicomputers for multiple access applications, Prime is pioneering in marketing such systems directly to end users. While Prime's minicomputer competitors concentrated on OEM customers, Prime moved directly to the end users. These original end users were sophisticated users of computer systems, but they put Prime into direct touch with the end user marketplace.
- Prime is now extending that end user marketing approach downward in user sophistication with its new Prime Information System series of packaged hardware/software systems, and also extending it in applications with an increasing effort in business data processing applications.
- The effect of this expanded capability has been felt only by specialized segments of the small establishment marketplace, namely the high scientific content-type companies such as engineering firms. However, this effect is almost certain to be felt more widely as Prime and its many competitors, who are or will be doing similar things, move their advanced computer concepts lower in the end user marketplace.
- Prime's main products are large, multi-user minicomputers. The first of these were the 300,400, and 500 series.
- In January 1979, Prime introduced a new 32-bit series: the 450, 550, 650, and 750. The 450 is oriented toward the system-builder application while the others are continuing in the end user, multiple-access mode which Prime has found so successful.

- Prime offers a broad line of peripheral devices for these processors, but it obtains these devices from OEM manufacturers and apparently expects to continue this policy.
- Prime recently announced the introduction of three new systems called Prime Information Systems. These end user systems are being offered with end user software and hardware in a single package. The software has been developed by Devcom, a Bellevue (WA) systems house. The software is compatible with the Reality software package used on smaller Microdata systems. The target market for these new packaged systems are first-time computer users and Microdata users who have outgrown their present systems.

### 3. SELECTION RATIONALE

- Prime is one of the four or five most soundly managed and established minicomputer manufacturers. Its product line is now broad, varied, and well architected. The company has a national and, to a degree, international field service organization.
- Prime's management is such that it could interact well with the management of a larger company such as Pitney Bowes. The company is well beyond the entrepreneurial stage and, thus, management is relatively deep, both at the top-management and middle-management levels.
- The company's software development capability is relatively well-developed although, as mentioned in the previous comments, it still depends on third-party companies for applications software.

## V. QANTEL CORPORATION

Qantel Corporation  
3525 Breakwater Avenue  
Hayward, CA 94545  
(415) 783-3410

Douglas Baker, President  
Private Company

### I. THE COMPANY

- Qantel, incorporated in 1969, designs, manufactures, and markets small business computer systems.
- Qantel's sales have increased approximately 100% per year from \$10 million in fiscal 1976 to \$40 million in fiscal 1978.
- Qantel has pioneered in the business computer market. Its product line is sold to small manufacturers and distributors. Most are first-time users that have converted from local batch services or computer service bureaus. Over 1,500 systems are installed, and the company is presently shipping more than 100 systems per month.
- Corporate strategy is to concentrate marketing efforts towards the placement of free-standing systems in selected geographic markets, as well as multiple mainframes into a distributed processing network. Network sales account for 10% of installations. This strategy results in concentrations of system population, substantially reducing the cost of providing field maintenance services.
- Qantel markets its products to the end user via a network of agents and distributors. It has no company-owned sales offices.
- Qantel competes primarily with products offered by BasicFour, DEC, IBM, Microdata, Burroughs, and NCR.

QANTEL CORPORATION  
FIVE-YEAR FINANCIAL SUMMARY  
(\$000s omitted)

	1979	1978	1977	1976	1975
Revenues	\$60,000 (Approx.)	\$45,000 (Approx.)	-	-	-
Net Income	\$ 3,000 (Est.)	\$ 3,000 (Est.)	-	-	-

## 2. KEY PRODUCTS AND SERVICES

- Qantel provides a broad range of systems in three series (210, 900, and 1400 series) which are modular in concept and software-compatible. Systems are priced from \$12,000 to \$150,000, with the average system price about \$55,000.
- The hardware available includes processors (from 40K to 1,024K bytes of memory in 16K increments), disk drives (2-75 MB), tape drives, printers (60-600 lpm), 45 cps serial printers, visual display workstations, card readers, and communications capabilities.
- The company provides an assembler, QIC (Qantel Interactive Code, an advanced BASIC language); a source programming language, BEST (Business Executive System for Timesharing); and SOLUTIONS, an applications package covering a number of accounting functions.
- Qantel provides field maintenance for installations in the U.S. Maintenance for overseas systems is handled by the respective international distributor.
- Qantel systems are used in general business applications such as order entry, inventory control, payroll, accounts receivable and payable, and general ledger or financial statements.
- In addition, a growing line of specialized packages services vertical markets, such as manufacturing control, client accounting, and medical clinics.



- The company utilizes distributors, users' in-house staff, and local software houses to provide the majority of applications programming to its customer base. Qantel provides its distributors with modular software packages for these functions.
- Over 50% of installations are with distribution companies, followed by manufacturing concerns and banks.

### 3. SELECTION RATIONALE

- Qantel has established itself as a broad-based, turnkey, minicomputer vendor. The company has developed its own software development capability and is now able to provide standard accounting applications. It does not, however, provide users with customized software.
- The company does not now market its products through its own sales force; instead it utilizes third-party distributors. The acquisition of Qantel by Pitney Bowes could prove synergistic by combining Pitney Bowes' field force with Qantel's technological expertise.



## W. QUOTRON SYSTEMS, INC.

Quotron Systems, Inc.  
5454 Beethoven Street  
Los Angeles, CA 90066  
(213) 398-2761

Milton E. Mohr, President & CEO  
Public Corporation, OTC

### I. THE COMPANY

- Quotron Systems, Inc. was founded as a Delaware Corporation in 1957 to design and manufacture equipment and components used in remote computing. These included broad product lines ranging from components for mobile radio telephones to line amplifiers for American Telephone and Telegraph and its associated companies.
  - After about 1960, Quotron concentrated research and development activities on accessing remote data bases. The firm moved into the services business when it began to deliver stock market information to the brokerage industry.
  - Quotron then constructed a nationwide communication network which today is comprised of leased long-line, low-speed and high-speed local lines with multiplexers and data concentrators in 42 cities throughout the United States.
- Today, Quotron's major business is the provision of financial information, such as stock quotations, to the financial community.
- Computer services revenues generated 91% of fiscal 1977 revenues of \$33 million. Direct sales (computer equipment primarily) were approximately \$3.1 million. Total revenues for fiscal 1978 are projected to reach from \$38-40 million, based on the more than \$18 million revenues generated during the first half of the year.

- About 3-4% of 1977 revenues were expended for research and development.
- Income before tax and extraordinary items for fiscal 1977 was \$5,313,354. Net income was \$4,850,374, up 74% over 1976.
- In 1975, Quotron contested the assessment of a utility tax in the state of New York. The appeals court reversed the decision of the lower court and, as a result, Quotron's fiscal 1977 financial statements reflected a \$1.1 million credit.

QUOTRON SYSTEMS, INC.  
FIVE-YEAR FINANCIAL SUMMARY  
(\$000s omitted)

	1979	1978	1977	1976	1975
Revenues	\$47,415	\$39,379	\$33,353	\$24,643	\$16,208
Net Income	7,017	4,470	4,850	2,792	330

## 2. KEY PRODUCTS AND SERVICES

- Remote computing services generated 95% of Quotron's 1977 computer services revenues. Professional services accounted for the other 5% of revenues.
- Remote computing revenues were derived as follows:
  - Data base inquiry 84%
  - Interactive 16%
- Quotron 800<sup>R</sup>, Quotron's Financial Information Service (FIS) and major data base service, provides security quotations, analysis, and related information to the financial community.

- The basic service is available for a monthly fee which may vary depending upon optional features selected.
- It includes hardware (including terminals), systems analysis and programming, field engineering, maintenance, and access to the data base which includes information from the following sources:
  - . American Stock Exchange.
  - . Boston Stock Exchange.
  - . Chicago Board of Trade.
  - . Chicago Mercantile Exchange.
  - . Dow Jones.
  - . International Commercial Exchange.
  - . Kansas City Grain Exchange.
  - . Midwest Stock Exchange.
  - . Minneapolis Grain Exchange.
  - . NASDAQ.
  - . National Stock Exchange.
  - . New York Cocoa Exchange.
  - . New York Coffee-Sugar Exchange.
  - . New York Commodity Exchange.

- . New York Mercantile Exchange.
  - . New York Stock Exchange.
  - . Pacific Commodity Exchange.
  - . Pacific Stock Exchange.
  - . Reuters.
  - . Standard & Poors.
  - . Winnipeg Grain Exchange.
- Options available to users of Quotron 800 produce about 30% of total FIS revenues. These options include:
- . Ticker displays.
  - . Selective ticker.
  - . Block trading monitor.
  - . Story recall.
  - . Wire service new display.
  - . Interoffice messages.
  - . Electronic chalkboard.
  - . QUOTETYPE.
  - . QUOTEVUE.

- . QUOTEBOARD.

- . QUOTELIST (for security pricing and portfolio analysis).

- . Vu Set (terminal available from American Telephone for accessing Quotron's data base).

- The average Quotron 800 customer has 14 terminals installed and spends from \$18,000 to \$25,000 per year for the service and its options.
- The approximately 1,600 Quotron users include Merrill Lynch (which generates about 18% of revenues); Blyth, Eastman, Dillon & Co.; Salomon Brothers; The First Boston Corporation; Shearson, Hayden, Stone, Inc.; Smith, Barney, Harris, Upham & Co., Inc.; Lehman Brothers, Inc.; and most security exchanges.

- Interactive remote computing includes access to user-controlled and maintained data bases, and store-and-forward, interoffice communications services.
- Professional services revenues are primarily generated by contract programming services. Most contracts are for customization of Quotron's standard products.

### 3. APPLICATIONS

- Approximately 84% of Quotron's processing applications are derived from the sale of a financial data base: a specialty service. Remaining processing revenues are derived from utility and general business services.

### 4. SELECTION RATIONALE

- Although Quotron has historically served only a very narrow market, the Wall Street community, its product line represents a very interesting entree for the



"office-of-the-future" market. In effect, Quotron now provides the basics for an automated office in the financial services industry.

- It is INPUT's opinion that Quotron could easily provide Pitney Bowes with the technology and management expertise to move towards a broader "office-of-the-future" product line.

## X. TRIAD SYSTEMS CORPORATION

Triad Systems Corporation  
1252 Orleans Drive  
Sunnyvale, CA 94088  
(408) 734-9720

William W. Stevens, Chairman &  
President  
Public Corporation, OTC

### I. THE COMPANY

- Triad Systems Corporation was founded in 1972 in Sunnyvale, California. Its product line is a series of minicomputer-based systems. From its founding to date, Triad has sold its systems primarily to wholesalers and retailers serving the automotive aftermarket. The systems are delivered as turnkey systems and include the following applications packages:
  - Inventory management.
  - Order entry and invoicing.
  - Purchasing.
  - Customer accounting.
  - Multistore, POS capability.
  - Data communications.
  - Inventory control.
- Approximately 1,200 Triad systems were sold as of the end of CY 1979.
- During a meeting with the financial community, Triad's chairman indicated that the company is planning to expand into new, but related, market segments; i.e., tire distributors and retail hardware stores.

TRIAD SYSTEMS CORPORATION  
FIVE-YEAR FINANCIAL SUMMARY  
(\$000s omitted)

	1980 (3 mos)*	1979	1978	1977	1976
Revenues	\$11,612	\$30,800	\$14,800	\$ 7,269	\$ 3,865
Net Income	942	3,297	1,640	781	201

\*3 mos, FY 1979 revenues = \$5,034,000  
net income = \$591,724

## 2. KEY PRODUCTS AND SERVICES

- Triad manufactures its own CPUs and terminals. The systems are all disk-oriented, and the company buys its disk drives from Control Data Corporation.
- The product is a complete turnkey mini system. Due to the specialized nature of Triad's chosen marketplace (automotive aftermarket), the systems are all highly standardized. The automotive aftermarket wholesalers have, for many years, used a highly standardized parts numbering system. This has assisted companies like Triad in producing and maintaining highly standardized, stand-alone, turnkey systems.

## 3. SELECTION RATIONALE

- Triad is one of the leading turnkey minicomputer vendors. It has, to date, served narrowly defined market segments and, thus, has been able to limit itself to developing a small number of standardized applications software packages.
- The company is smaller than many of the other companies selected. However, due to its fairly recent move into the wholesaler/distributor market, it should experience rather rapid growth. Management is sound but, as might be expected, does not have the depth of larger firms.

III COMPANIES ELIMINATED FROM FURTHER  
CONSIDERATION





### III COMPANIES ELIMINATED FROM FURTHER CONSIDERATION

- The following companies were originally considered but rejected for the reasons stated:
  - AGS Computers.
    - Small.
  - Apple Computer.
    - Track record inconsistent.
  - Beehive International.
    - Size.
    - Terminal only.
    - Location.
  - Boeing Computer Services.
    - Majority of revenue from parent company.
  - Bolt, Beranek & Newman.
    - Basically consulting.

- Bunker-Ramo.
  - . Imbedded in parent company.
- CACI.
  - . Heavy government.
- CARS.
  - . Narrow market.
- CinCom.
  - . Software only.
- Cogna Systems.
  - . Too small.
- Commodore International.
  - . Located in Canada.
- ComNet.
  - . Government-oriented.
- Com-Serve.
  - . Too small.

- Compu-Serve.
  - . Acquired by H & R Block.
- Computer Horizons.
  - . Too small.
- CyCare.
  - . Small, not unique.
- Datapoint Corporation.
  - . Size.
- Datatel.
  - . Too small.
- Decision Data Computer.
  - . Printers only.
- Delta Information Systems.
  - . Size.
  - . Software-oriented.
- Diablo Systems.
  - . Ownership.

- Distribution Management Systems.
  - . Too small.
- E.D.S.
  - . Large, heavy F.M.
- Electronics Engineering of California (EECO).
  - . Too specialized.
- Four Phase Systems.
  - . Too large.
- Grumman Data Systems.
  - . Management ties to parent company.
- ICL, Inc.
  - . Parent company in United Kingdom.
- Index Systems.
  - . Consulting only.
- Inforex.
  - . Financial problems.

- Interactive Data Corporation.
  - . Narrow product line.
  - . Ownership.
- Interdata.
  - . Ownership.
- Keane Association.
  - . Software only.
- Keydata.
  - . Poor management.
- Logicon.
  - . 60% of revenues from D.O.D.
- Management Science of America.
  - . Software-oriented.
- Martin Marietta Data Systems.
  - . Majority of revenues from parent company.
- May & Speh.
  - . Too small.



- Microdata Corporation.
  - . Acquired.
- Mini-Computer Systems, Inc.
  - . Too small.
- Multiple Access Corporation.
  - . Canadian.
- NCR Data Center.
  - . Low technology.
- Ohio Scientific.
  - . Too specialized.
- Optimum Systems, Inc.
  - . Ownership problems.
- Pentamation Enterprises.
  - . Small, F.M.-oriented.
- Pertec Computer Corporation.
  - . Too large.

- Planning Research Corporation.
  - . Too large, government think-tank.
- Pryor Corporation.
  - . Low technology.
- Rapidata.
  - . Management.
- Reynolds & Reynolds.
  - . Too specialized.
- S.C.I. Systems, Inc.
  - . Revenues basically from non-EDP.
- S.D.C.
  - . Government-oriented.
- S.M.S.
  - . Narrow market.
- STC Systems.
  - . Too small.
- Scientific Computers, Inc.
  - . Too scientific.

- Scientific T.S. Corporation.
  - . Scientific/government market.
- Serra Research Corporation.
  - . Heavy government.
- R. Shriver Association.
  - . Too small.
- A.O. Smith Data Systems Dir.
  - . Low technology.
- Software International Corporation.
  - . Too specialized.
- Stat-Tab.
  - . Low technology.
- Sun Information Services.
  - . Too dependent on parent company.
- Tymshare.
  - . Too large.
- United Computing Systems.
  - . Tied to parent company.

- Western Union Teleprocessing.
  - . "Hodge-podge"/poor management.
- Wyly Computing.
  - . Track record poor.
- Xerox Computer Services.
  - . Basically low technology.







